STRUCTURE 166

This structure is a reinforced concrete, gated spillway with discharge controlled by a stem operated, vertical lift gate. Operation of the gate is automatically controlled so that the gate operating system opens or closes the gate in accordance with operational criteria. The structure is located on Canal 103N about 600 feet west of U.S. Highway #1.

PURPOSE

This structure maintains optimum upstream water control stages in Canal 103N; it passes the design flood (40% of the Standard Project Flood) without exceeding the upstream flood design stage, and restricts downstream flood stages and channel velocities to non-damaging levels.

OPERATING CRITERIA

This structure is operated under automatic control as follows:

When the headwater elevation rises to 5.7 feet, the gate begins to open;

When the headwater elevation rises or falls to elevation 5.1, the gate becomes stationary;

When the headwater elevation falls to 4.9 feet, the gate begins to close;

FLOOD DISCHARGE CHARACTERISTICS

	Design
Discharge Rate	420 cfs
	40 % SPF
Headwater Elevation	5.2 feet
Tailwater Elevation	4.6 feet
Type Discharge	Uncontrolled Submerged

DESCRIPTION OF STRUCTURE

Type reinforced concrete, gated spillway

Weir Crest

Net Length 12.0 feet

Elevation -2.0 feet

Service Bridge Elevation 10.0 feet

Water Level which will by-pass structure 6? feet

Gates

Number 1

Size 8.5 ft. high by 12.8 ft. wide

Type vertical slide gate

Bottom elevation of gate, full open 8.0 feet

Top elevation of gate, full closed 6.5 feet

Control on-site automatic

Lifting Mechanism

Normal power source commercial electricity

Emergency power source L.P. gas engine driven generator

Type Hoist direct drive motor, gear connected to screw stems

Date of Transfer: August 25, 1967

ACCESS: from Old Dixie Highway via access road on south side of C-103N

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level On-site upstream recorder, downstream staff gauge only

Gate Position Recorder None

DEWATERING FACILITIES

StorageWest Palm Beach

Type Stop logs

Size and number (per bay) _____

Upstream & Downstream

19 each 8" X 8" X 13' -2" long